

Tools Used

Java Sdk

Eclipse IDE

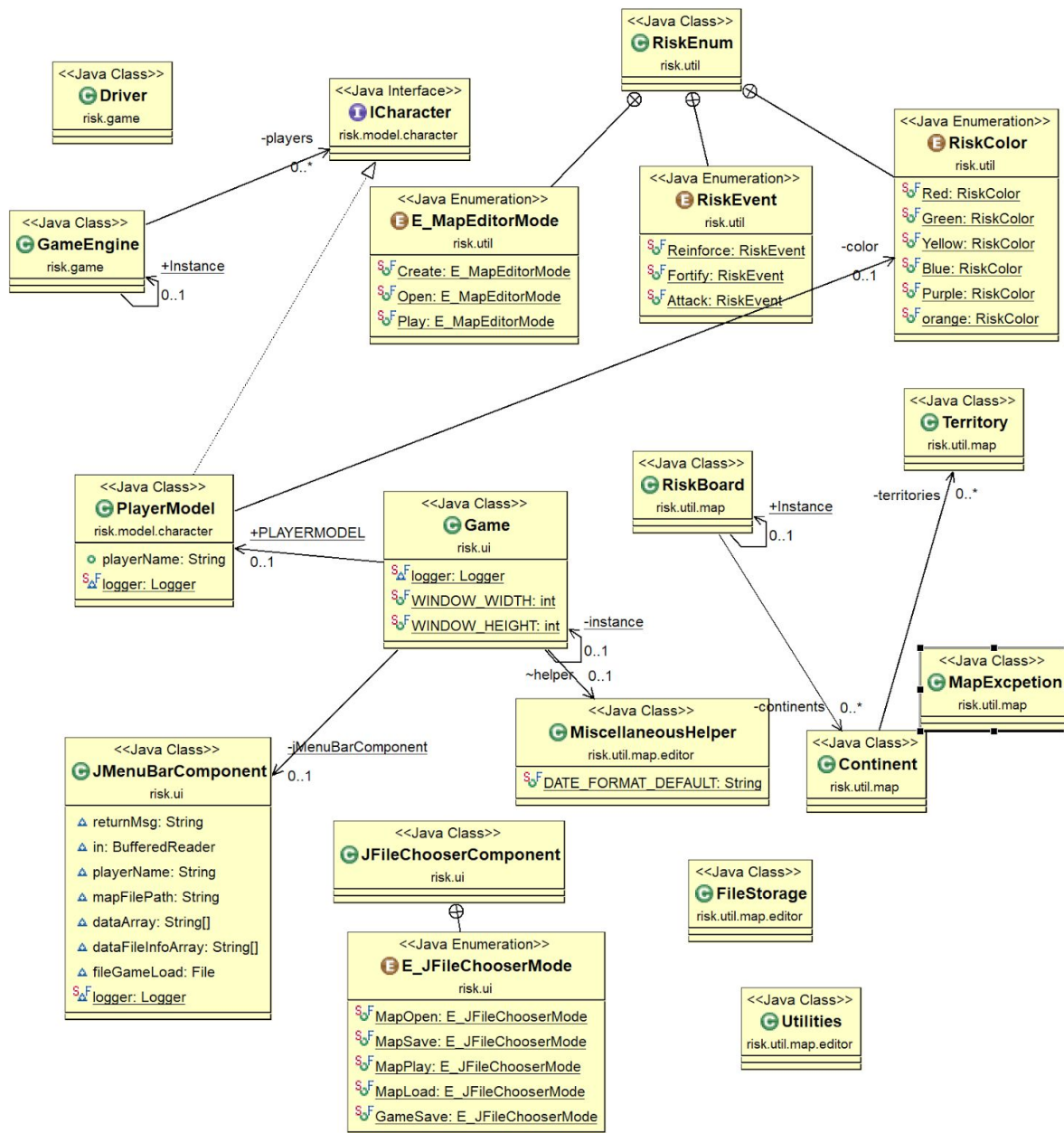
JUnit 4

Git via GitHub

Slack and whatsApp for team communication

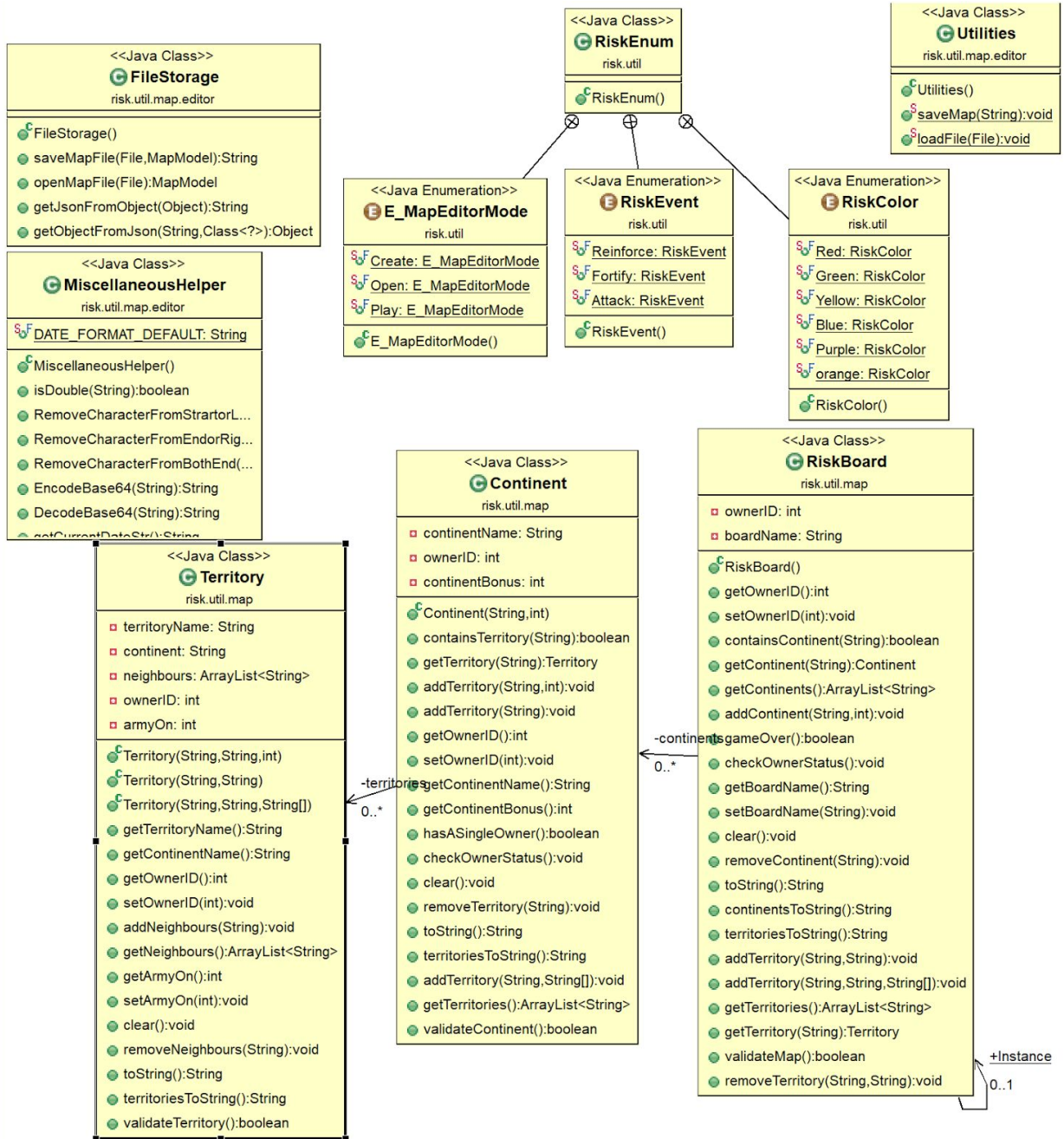
Formal weekly meetings were held.

Full Architecture Diagram

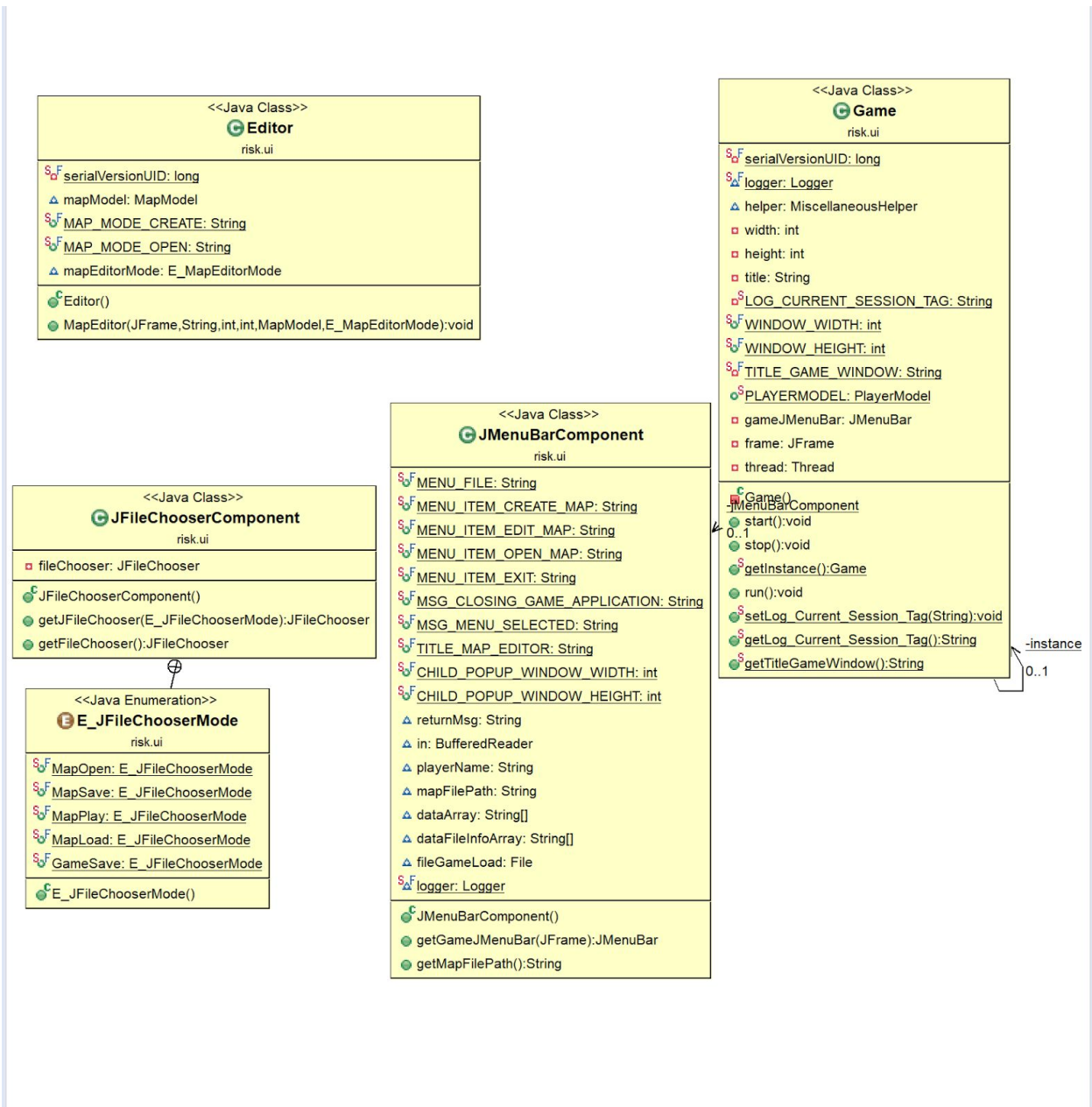



```

classDiagram
    class FileStorage {
        <<Java Class>>
        +FileStorage()
        +saveMapFile(File, MapModel):String
        +openMapFile(File):MapModel
        +getJSONFromObject(Object):String
        +getObjectFromJSON(String, Class<?>):Object
    }
    class MiscellaneousHelper {
        <<Java Class>>
        +DATE_FORMAT_DEFAULT:String
        +MiscellaneousHelper()
        +isDouble(String):boolean
        +RemoveCharacterFromStrartorL...
        +RemoveCharacterFromEndorRig...
        +RemoveCharacterFromBothEnd(...
        +EncodeBase64(String):String
        +DecodeBase64(String):String
        +GetCurrentDataStr():String
    }
    class Territory {
        <<Java Class>>
        +territoryName:String
        +continent:String
        +neighbours:ArrayList<String>
        +ownerID:int
        +armyOn:int
        +Territory(String, String, int)
        +Territory(String, String)
        +Territory(String, String, String[])
        +getTerritoryName():String
        +getContinentName():String
        +getOwnerID():int
        +setOwnerID(int):void
        +addNeighbours(String):void
        +getNeighbours():ArrayList<String>
        +getArmyOn():int
        +setArmyOn(int):void
        +clear():void
        +removeNeighbours(String):void
        +toString():String
        +territoriesToString():String
        +validateTerritory():boolean
    }
    class Continent {
        <<Java Class>>
        +continentName:String
        +ownerID:int
        +continentBonus:int
        +Continent(String, int)
        +containsTerritory(String):boolean
        +getTerritory(String):Territory
        +addTerritory(String, int):void
        +addTerritory(String):void
        +getOwnerID():int
        +setOwnerID(int):void
        +getContinentName():String
        +getContinentBonus():int
        +hasASingleOwner():boolean
        +checkOwnerStatus():void
        +clear():void
        +removeTerritory(String):void
        +toString():String
        +territoriesToString():String
        +addTerritory(String, String[]):void
        +getTerritories():ArrayList<String>
        +validateContinent():boolean
    }
    class RiskEnum {
        <<Java Class>>
        +RiskEnum()
    }
    class E_MapEditorMode {
        <<Java Enumeration>>
        +Create:E_MapEditorMode
        +Open:E_MapEditorMode
        +Play:E_MapEditorMode
        +E_MapEditorMode()
    }
    class RiskEvent {
        <<Java Enumeration>>
        +Reinforce:RiskEvent
        +Fortify:RiskEvent
        +Attack:RiskEvent
        +RiskEvent()
    }
    class RiskColor {
        <<Java Enumeration>>
        +Red:RiskColor
        +Green:RiskColor
        +Yellow:RiskColor
        +Blue:RiskColor
        +Purple:RiskColor
        +orange:RiskColor
        +RiskColor()
    }
    class RiskBoard {
        <<Java Class>>
        +ownerID:int
        +boardName:String
        +RiskBoard()
        +getOwnerID():int
        +setOwnerID(int):void
        +containsContinent(String):boolean
        +getContinent(String):Continent
        +getContinents():ArrayList<String>
        +addContinent(String, int):void
        +gameOver():boolean
        +checkOwnerStatus():void
        +getBoardName():String
        +setBoardName(String):void
        +clear():void
        +removeContinent(String):void
        +toString():String
        +continentsToString():String
        +territoriesToString():String
        +addTerritory(String, String):void
        +addTerritory(String, String, String[]):void
        +getTerritories():ArrayList<String>
        +getTerritory(String):Territory
        +validateMap():boolean
        +removeTerritory(String, String):void
    }
    class Utilities {
        <<Java Class>>
        +Utilities()
        +saveMap(String):void
        +loadFile(File):void
    }
    FileStorage --> RiskBoard
    MiscellaneousHelper --> RiskBoard
    Territory --> RiskBoard
    Continent --> RiskBoard
    RiskEnum --> RiskBoard
    E_MapEditorMode --> RiskBoard
    RiskEvent --> RiskBoard
    RiskColor --> RiskBoard
    Utilities --> RiskBoard
    
```



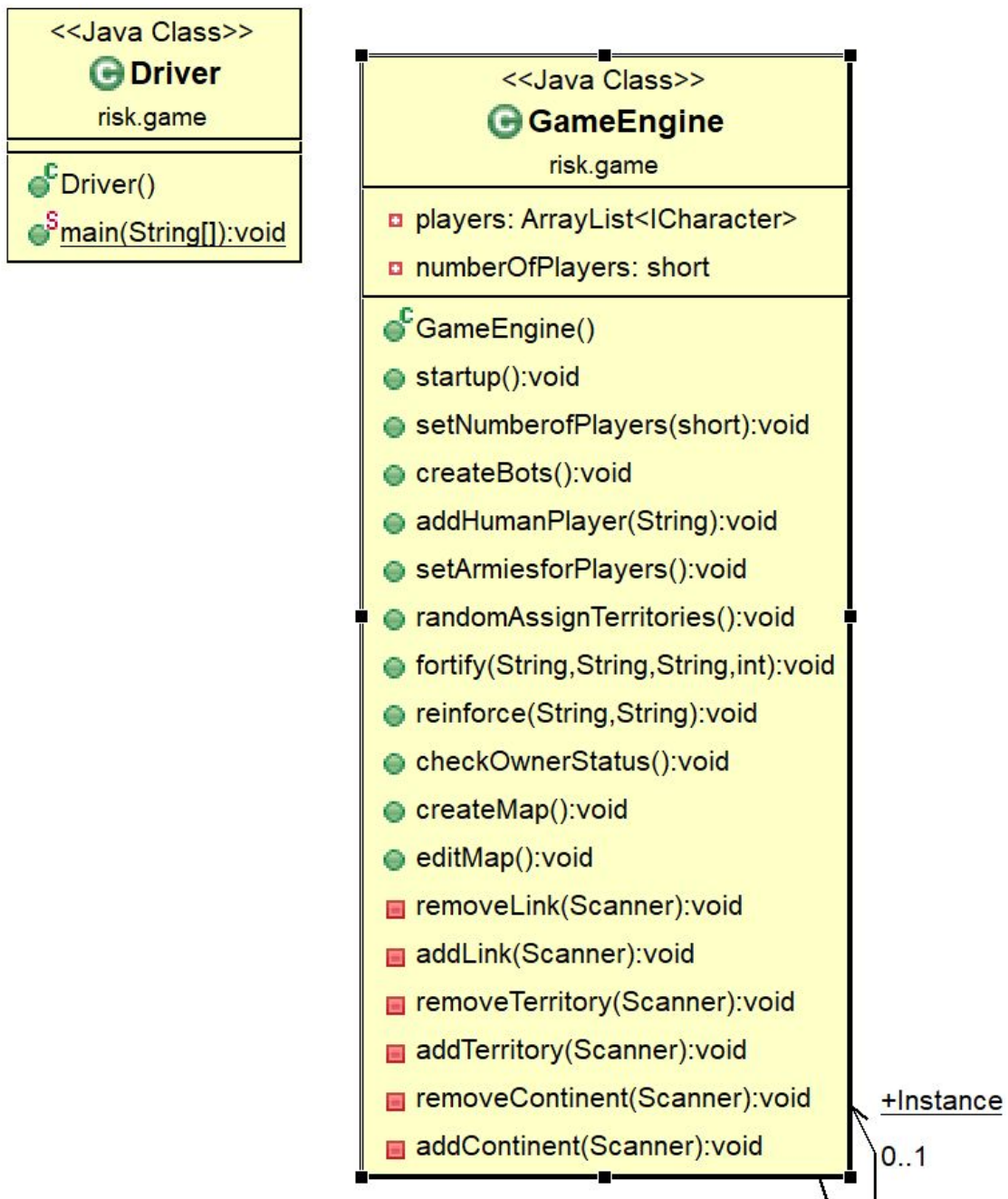
Risk Ui Module



Risk Model module



Risk Game module



This module simply contains the driver and the Game Engine.